

Albuquerque Solar Resource

Sandia National Laboratories

Photovoltaic Systems Evaluation Laboratory

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Annual Daytime Average Values									
Year	Global Normal Irradiance	Direct Normal Irradiance (TMY3 = 6.7)	Global Horizontal Irradiance** (TMY3 = 5.43)	Latitude Tilt Irradiance**	Diffuse Horizontal Irradiance (TMY3 = 1.46)	Peak GNI (1-hr avg)	Peak DNI (1-hr avg)	Peak GHI (1-hr avg)	Peak Lat.Tilt (1-hr avg)
	----- kWh/m ² /d -----					----- W/m ² -----			
TMY2	8.8	6.7	5.6	6.4	1.6	-	-	-	-
2014	8.85	7.10	5.54	6.40	1.28	1176	1083	1098	1196
2013	8.82	7.23	5.59	6.63	1.24	1192	1076	1093	1182
2012	9.17	7.41	5.69	6.65	1.21	1177	1080	1091	1204
2011	9.06	7.29	5.65	6.59	1.21	1210	1092	1084	1184
2010	9.02	7.33	5.58	6.40	1.14	1184	1083	1091	1180
2009	8.88	7.10	5.47	6.49	1.29	1195	1083	1091	1208
2008	9.01	7.31	5.57	6.54	1.22	1204	1086	1077	1233
2007	8.73	6.93	5.46	6.32	1.27	1180	1088	1072	1178
2006	8.80	6.88	5.51	6.43	1.31	1195	1096	1103	1228
2005	8.60	6.82	5.39	6.23	1.30	1171	1075	1100	1202
2004	8.82	7.06	5.55	6.31	1.24	1191	1078	1120	1176
2003	8.80	7.05	5.38	6.29	1.29	1181	1089	1080	1164
2002	8.96	7.15	5.58	6.50	1.29	1294	1118	1115	1211
2001	8.75	7.00	5.46	6.31	1.28	1195	1086	1105	1172
2000	8.73	7.01	5.48	6.29	1.27	1209	1083	1125	1209
1999	9.03	7.37	5.53	6.53	1.23	1167	1095	1107	1176
1998	8.81	7.04	5.45	6.23	1.30	1239	1091	1102	1217
1997	8.39	6.76	5.22	6.05	1.32	1212	1087	1099	1170
1996	8.76	7.19	5.42	6.39	1.24	1161	1076	1096	1173
1995	8.49	6.91	5.42	6.26	1.33	1183	1066	1082	1211
1994	8.53	6.71	5.35	6.19	1.33	1189	1066	1112	1206
1993	8.57	6.48	5.36	6.20	1.47	1210	1039	1132	1160
1992***	7.92	5.48	5.26	5.80	1.74	1172	987	1100	1162
1991	8.52	6.52	5.45	-	1.49	1174	1076	1124	-
24 yr avg:	8.75	6.96	5.47	6.35	1.30	1195	1076	1102	1190

Notes: * Includes daytime and nighttime values.

** Pyranometer corrected for angle of incidence starting in 1996 for horizontal and 1997 for latitude tilt.

Latitude tilt sensor moved from the equivalent of the back row to the front row of an array on 10/10/2007.

***Mt. Pinatubo, Phillipines, erupted 6/91, reduced solar resource late 1991, 1992, early 1993.

TMY = Typical Meteorological Year

Albuquerque Weather
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Year	Annual Average Values								
	Ambient Temp. (24 hrs)	Ambient Temperature (day)	Relative Humidity*	Avg. Wind Speed (@10m)*	Peak Avg WndSpd (1hr avg)*	Peak Wnd Spd (Instant.)*	Wind Direction*	Rainfall (total annual)*	Lightning Near Strikes~
	Degrees Celsius	%		meters/sec		deg	cm	#	
TMY2	13.4	16.0	44	4.3	-	-	-	-	-
2014	14.8	17.7	38	3.2	14.8	27.2	142	21.2	49
2013	14.1	17.1	38	3.1	15.9	25.6	165	38.1	30
2012	15.4	17.9	34	3.1	15.7	24.8	111	13.7	18
2011	14.4	17.5	35	3.1	17.4	27.0	113	20.6	17
2010	14.5	17.3	47	3.2	15.6	25.2	121	34.4	51
2009	14.5	16.8	34	3.3	14.9	24.5	122	24.0	12
2008	14.2	16.6	36	3.4	14.7	24.0	148	26.9	20
2007	14.5	16.9	38	3.3	15.5	23.5	112	28.3	34
2006	14.5	17.0	36	3.5	15.0	25.4	137	51.4	61
2005	14.7	17.2	38	3.6	17.5	27.2	133	39.4	40
2004	13.9	16.8	37	3.9	19.0	27.0	138	42.1	41
2003	15.0	17.5	34	3.6	18.7	27.5	133	20.8	24
2002	14.4	17.0	36	3.6	18.9	32.2	135	20.8	40
2001	14.5	17.0	42	3.7	20.1	29.3	111	18.7	23
2000	14.6	17.2	42	3.9	18.6	27.5	104	34.2	59
1999	14.1	16.6	40	4.1	20.6	30.2	72	25.9	-
1998	13.9	16.4	32	4.0	17.4	25.8	91	32.3	-
1997	13.2	15.7	32	4.1	20.6	30.8	93	45.9	-
1996	14.2	16.8	32	3.4	19.8	31.8	99	39.3	-
1995	14.5	16.9	23	3.3	17.3	25.4	-	19.7	-
1994	14.0	16.6	26	3.4	18.4	28.4	-	45.3	-
1993	13.6	16.2	30	3.6	22.1	35.1	-	40.2	-
1992	12.9	15.4	38	3.3	18.9	29.0	-	37.1	-
1991	13.0	15.5	40	4.0	19.6	30.0	-	30.6	-
24 yr avg:	14.2	16.8	35.7	3.5	17.9	27.7	119	31.7	34

Notes: ~ Near strike definition restricted 6/29/00 to be adjacent (< 4s) Potential Gradient readings of opposite polarity with magnitudes greater than 5kV/m.

Annual Averages

